



Global Shipping and the Panama Canal Expansion

Presentation for NMIC

9 Mar 2011

Capt. Gordan E. Van Hook, USN (Ret)
Senior Director, Innovation and Concept Development
Maersk Line, Limited



Agenda

1. Current Container Shipping Trends
2. Future Trends and Potential Impacts
3. Panama Canal Expansion Impact

A.P. Moller – Maersk is a global corporation in the shipping and energy industry



A.P. MOLLER - MAERSK GROUP

- | | |
|------------------------------------|---------------------------------|
| 1 APM Terminals | 9 Maersk LNG |
| 2 Container Inland Services | 10 Maersk Oil |
| 3 Damco | 11 Maersk Supply Service |
| 4 Dansk Supermarked | 12 Maersk Tankers |
| 5 Maersk Container Industry | 13 Odense Steel Shipyard |
| 6 Maersk Drilling | 14 Safmarine |
| 7 Maersk FPSOs | 15 Star Air |
| 8 Maersk Line | 16 Svitser |

- Comprehensive coverage of the world's need for cargo, oil and gas transport, terminal services and on-land logistics
- Energy-related business units include drilling and platform service companies, as well as one of the world's leading independent oil and gas firms

Current Container Shipping Trends

- The “conveyor belts” that enable globalization – 5M TEU to 14M TEU in last decade
- Intermodal distribution networks continue to favor containerization
- Ships are largely commoditized
- Container ship port calls continue to rise while other modes decline
- Economies of scale drive ship capacities higher
- Major gateway ports and transshipment hubs favored
- Major container flows are Asia to US and Europe



Future Trends

- Trend will continue toward larger ships, especially to take advantage of growth in Asia-Europe trade
- Ports must have draft and infrastructure to compete
- As fuel costs continue to rise, more operators will “slow steam” 16-18 kts vice 22-24 kts
- Increasing emphasis on sustainability
- Greater sizes will not lead to smaller fleets due to expected growth worldwide and infrastructure limitations



The Triple E

Economy of Scale

Energy Efficient

Environmentally Improved – 50% lower
CO2/container



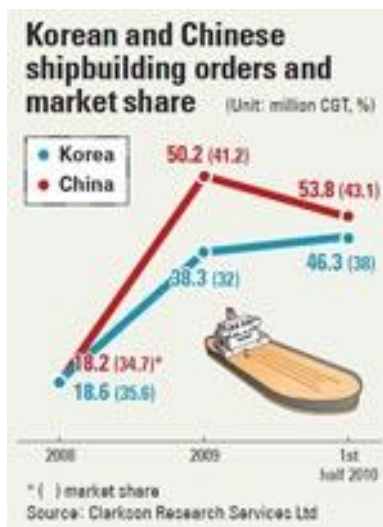
At 400 meters long, 59 meters wide and 73 meters tall, she will be the largest vessel of any type known to be in operation. She will not call on the US as no ports could take her and she will not fit in the new Panama Canal.

Why Ships Are Not Built in the US

Bottom Line: It is too expensive. American shipyards are not price competitive and have not been for many years. There are also issues of quality and contract execution. Infrastructure and techniques are largely outmoded. They would not exist if not for Jones Act and warships. There is a general consensus that subsidies and protectionism have stifled innovation and competitiveness.

China is the leading shipbuilder by tonnage, followed by South Korea. South Korea is the leader by value.

Japan lost leadership to South Korea in 2004 and continues to drop quickly due to high costs.

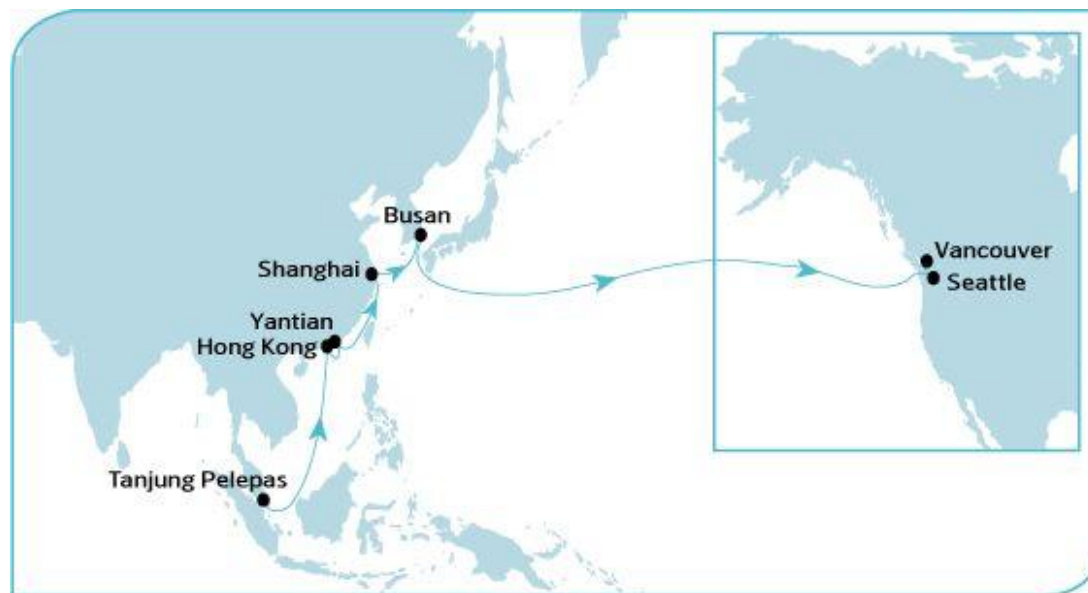


Port Selection Strategies

Driven by:

- demand
- costs
- infrastructure
- proximity to distribution networks

Operational research network problem drives liner and feeder string composition, and schedules



Transpacific 9 (TP9) - Eastbound

PORT	ARRIVES	DEPARTS	TRANSIT
Tanjung Pelepas, Malaysia	TUE 2100	WED 1100	--
Hong Kong, Mainland China	SAT 1500	SUN 0400	3
Yantian, China	SUN 1100	MON 0300	4
Shanghai, China	WED 0500	WED 1700	7
Busan, South Korea	FRI 0600	FRI 1800	9
Seattle, WA, USA	SUN 1800	TUE 0800	18
Vancouver, Canada	WED 1630	FRI 0830	21

Note: Weekly Service

Panama Canal Expansion and the Effect on Shipping

- The main trade route affected is the Asia to US East Coast
- Effect on shipping patterns depends on whether expanded Canal will divert trade from its current principal route via the West Coast and rail.
- Variables include:
 - fees charged to use the Canal
 - infrastructure investment on the East Coast to handle larger ships
 - infrastructure investment in ports on the West Coast and rail
- Not clear that the expanded Canal will alter significantly existing patterns of trade, but may have a large impact on direction of infrastructure investment in the US. Very few US East Coast ports can handle larger (12k TEU) ships.



A group of five business professionals are seated around a conference table in a modern office setting. A man in a light blue shirt is gesturing with his right hand while speaking to the others. An older man in a grey suit and tie listens intently. Two women, one with glasses and one with blonde hair, also listen attentively. A fifth person is partially visible on the right. The table has papers, glasses of water, and coffee cups. A semi-transparent blue banner is overlaid at the bottom of the image.

Questions & Answers